5 SIZE, SHAPE AND DISTRIBUTION	Page 1 of 2	
Division of Forensic Science	Amendment Designator:	
BLOODSTAIN PATTERN ANALYSIS TRAINING MANUAL	Effective Date: 15-October-2004	

5 SIZE, SHAPE AND DISTRIBUTION

5.1 Objectives

- 5.1.1 To understand the distinguishing characteristics related to size, shape and distribution of bloodstain evidence.
- 5.1.2 To understand how the characteristics of size, shape and distribution assist in the analysis of bloodstain evidence.

5.2 Methods of Instruction

_	2	1 T 4	and Discussion	

- 5.2.1.1 Size Determination (see Bloodstain Procedures Manual, Section 2)
- 5.2.1.2 Shape Determination (see Bloodstain Procedures Manual, Section 3)
- 5.2.1.3 Distribution Determination (see Bloodstain Procedures Manual, Section 4)

5.2.2 Literature References

- 5.2.2.1 Gardner, R. M., "Deformation Levels in Blood Droplets Created by Impact Events"
- 5.2.2.2 Gardner, R. M., "Modeling Impact Spatter as a Method of Differentiation", IABPA Training Conference, September 24, 1992
- 5.2.2.3 Engiert, R., "Bloodstain Patterns", A Reprint with Permission of Herbert Leon MacDonell
- 5.2.2.4 Stephens, B. G., M.D. and Allen, T. B., M.D.
 "Back Spatter of Blood from Gunshot Wounds Observations and Experimental Simulation",
 Journal of Forensic Sciences. JFSCA Vol.28 No.2 April 1983 pp 437-439
- 5.2.2.5 Adair, T. W. "False Wave Cast-off, Considering the Mechanisms of Stain Formation". Medical Examiner's Office, Everett, WA

5.2.3 Experiments

- 5.2.3.1 Division of Forensic Science Workshop experiments 1-5
- 5.2.3.2 Compare balloon pop results to static pool struck with blunt object
- 5.2.3.3 Have blood drawn & create expirated patterns
- 5.2.3.4 Create drip pattern satellites
- 5.2.3.5 Create arterial with high pressure spurt & resulting arterial rain
- 5.2.3.6 Prepare for classroom discussion of all of the aforementioned experiments

5.2.4 Evaluation of Spatter Size & Velocity Classification

- 5.2.4.1 Please read the enclosed five articles (listed in 5.2.2 and 5.2.3) and be prepared to discuss the following concepts:
 - 5.2.5.1.1 Differences between "low", "medium", and "high" velocity impact patterns.

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5.2.5.1.2	Other events which may produce stain pattern	s with characteristics of	impact.
5.2.5.1.3	Effects of porous/non-porous and smooth/text	tured target surfaces.	
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